

Appl. No. : 10/663,381  
Filed : September 15, 2003

## REMARKS

A. Introduction

Applicants respectfully request reconsideration and allowance of this application. Claims 1-13 and 15-25 are pending in the application. Applicants have canceled Claim 14 without prejudice. Applicants expressly reserve the right to pursue the subject matter of Claim 14 in continuing applications. The Examiner has indicated that Claims 7, 10 and 12 are allowed.

Applicants submit that this application is now in condition for allowance, and Applicants earnestly request such action. Below, Applicants address each of the Examiner's reasons for rejection.

B. All Claims are Patentable Over the Cited References

Gaylord in view of Jagdat

The Examiner rejected Claims 1, 2, 4, 8, 15-18 and 22 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,659,971 to Gaylord in view of U.S. Patent No. D 317,840 to Jagdat. Applicants respectfully submit that these claims are allowable over the combination of Gaylord and Jagdat.

In rejecting claims under § 103, the Examiner bears the initial burden of presenting a *prima facie* case of obviousness. *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See M.P.E.P. §§ 706.02(j), 2142. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991).

The initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done. "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985).

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Various preferred embodiments of the present application define, *inter alia*, a shoulder sling for supporting a wearer's arm at desired angles of abduction and external rotation. The sling comprises a support pillow and a plurality of straps for securing the support pillow to the wearer. The support pillow includes a contoured medial surface for abutting the wearer's torso, and a lateral surface for operatively contacting and supporting the wearer's arm. A distance between anterior edges of the medial and lateral surfaces is substantially greater than a distance between posterior edges of the medial and lateral surfaces. In some embodiments the sling further comprises a pouch for receiving and at least partially enclosing the wearer's forearm.

By contrast, Gaylord discloses an adjustable abduction apparatus, including a cushion for being received against the torso, a sling pouch attached to the cushion for maintaining a limb and shoulder of the wearer in an abducted position, and a support connected to the pouch for immobilizing the limb and shoulder in the abducted position and distributing the weight of the abducted limb evenly across the torso of the wearer. Contrary to the Examiner's assertion, Gaylord does not disclose or suggest a shoulder sling for supporting a wearer's arm at a desired angle of external rotation. In fact, not only does Gaylord contain no hint of supporting a wearer's arm at a desired angle of external rotation, but the figures illustrate that the shoulder sling is designed to support a wearer's arm at a desired angle of internal rotation. See Figures 2, 6, 7 and 11. And, as the Examiner concedes, Gaylord does not disclose or suggest a support pillow having medial and lateral surfaces, wherein a distance between anterior edges of the medial and lateral surfaces is substantially greater than a distance between posterior edges of the medial and lateral surfaces.

Jagdat discloses a pillow. However, not only is there no motivation or suggestion within the prior art to combine the teachings of Gaylord and Jagdat, but Jagdat also represents nonanalogous art. As discussed above, Gaylord makes no mention whatsoever of supporting a wearer's arm at a desired angle of external rotation. Further, Gaylord does not even suggest that supporting a wearer's arm at a desired angle of external rotation would be desirable. Jagdat also cannot provide this motivation, since Jagdat merely discloses a design for a pillow, and makes no mention of how that pillow could be used. Despite the fact that the pillow in Jagdat has a similar shape to Applicant's support pillow, Jagdat makes no suggestion or motivation of using the pillow therein in a shoulder sling. For these reasons, Jagdat also represents nonanalogous art since it has nothing whatsoever to do with orthopedic bracing. It appears that in combining the

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teachings of Gaylord and Jagdat, the Examiner has impermissibly used Applicant's disclosure as a roadmap.

Since there is no motivation or suggestion within the prior art to combine the teachings of Gaylord and Jagdat, and since Jagdat represents nonanalogous art, Applicants respectfully submit that independent Claims 1 and 15 are allowable over Gaylord in view of Jagdat. Dependent Claims 2, 4 and 8, which include the features of independent Claim 1, and dependent Claims 16-18 and 22, which include the features of independent Claim 15, recite additional features of particular advantage and utility. Moreover, these claims are allowable for substantially the same reasons presented above. Accordingly, Applicants respectfully request that the Examiner withdraw these rejections.

Gaylord and Jagdat in view of Schaefer

The Examiner rejected Claims 5, 6, 13, 19 and 20 under 35 U.S.C. § 103(a) as being unpatentable over Gaylord and Jagdat in view of U.S. Patent No. 4,598,701 to Schaefer. Applicants respectfully submit that these claims are allowable over the combination of Gaylord, Jagdat and Schaefer.

Claims 5 and 6 depend from Claim 1, the allowability of which Applicants have demonstrated above. Since Claims 5 and 6 include all of the limitations of Claim 1, they are allowable for the same reasons presented above. Accordingly, Applicants respectfully request that the Examiner withdraw these rejections.

Various preferred embodiments of the present application define, *inter alia*, a shoulder sling for supporting a wearer's arm at desired angles of abduction and external rotation. The sling comprises a support pillow, a pouch for receiving and at least partially enclosing the wearer's forearm, and a plurality of straps for securing the support pillow and the pouch to the wearer. The support pillow includes a contoured medial surface for abutting the wearer's torso, and a lateral surface for operatively contacting and supporting the wearer's arm. An upper surface of the support pillow includes a straight indicator line that provides a visual cue to the wearer so that the wearer knows when the sling is properly fitted.

By contrast, Gaylord discloses an adjustable abduction apparatus, and Jagdat discloses a pillow, as described above. Schaefer discloses a shoulder abduction splint constructed from a unitary block of synthetic foam. The Examiner asserts that "the horizontal strips [18-20] of Schaefer act as an indicator line as claimed by the applicant to ensure proper fit and placement of

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the straps.” Applicants respectfully assert that the Velcro patches 18, 19, 20 have nothing whatsoever to do with providing visual indication of proper fit and placement of the splint. First, these patches 18, 19, 20 provide attachment points for the straps 28, 29. Second, when the splint is secured about the wearer these patches 18, 19, 20 are not visible, especially not to the wearer (*see* Figures 1-3), and so cannot possibly provide any visual indication of anything, let alone of proper fit and placement of the splint. Hidden objects by definition cannot provide a visual indication of anything.

Since the combination of Gaylord Jagdat and Schaefer does not disclose or suggest at least a support pillow including a straight indicator line that provides a visual cue to the wearer so that the wearer knows when the sling is properly fitted, Applicants respectfully submit that independent Claim 13 is allowable over Gaylord and Jagdat in view of Schaefer. Accordingly, Applicants respectfully request that the Examiner withdraw this rejection.

Claims 19 and 20 depend from Claim 15, the allowability of which Applicants have demonstrated above. Since Claims 19 and 20 include all of the limitations of Claim 15, they are allowable for the same reasons presented above. Accordingly, Applicants respectfully request that the Examiner withdraw these rejections.

**Gaylord in view of Schaefer**

The Examiner rejected Claims 23 and 25 under 35 U.S.C. § 103(a) as being unpatentable over Gaylord in view of Schaefer. Applicants respectfully submit that these claims are allowable over the combination of Gaylord and Schaefer.

Various preferred embodiments of the present application define, *inter alia*, a shoulder sling adapted to support a human wearer’s arm at desired angles of abduction and external rotation. The sling comprises a support pillow, a pouch adapted to cooperate with the support pillow lateral surface to at least partially enclose the wearer’s forearm, a shoulder pad adapted to rest upon the wearer’s shoulder and a plurality of straps adapted to secure the support pillow and the pouch to the wearer. The support pillow includes a contoured medial surface adapted to abut the wearer’s torso and a lateral surface adapted to support the wearer’s forearm. A first one of the straps comprises a torso strap that is adapted to extend around the wearer’s torso and keep the medial surface of the support pillow in abutting contact therewith. A second one of the straps comprises a chest strap adapted to support an anterior portion of the support pillow and suspend the anterior portion of the support pillow from an anterior edge of the shoulder pad. A third one

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of the straps comprises a back strap adapted to support a posterior portion of the support pillow and suspend the posterior portion of the support pillow from a posterior edge of the shoulder pad.

By contrast, Gaylord discloses an adjustable abduction apparatus as described above. Contrary to the Examiner's assertion, Gaylord does not disclose or suggest a shoulder sling for supporting a wearer's arm at a desired angle of external rotation. In fact, not only does Gaylord contain no hint of supporting a wearer's arm at a desired angle of external rotation, but the figures illustrate that the shoulder sling is designed to support a wearer's arm at a desired angle of internal rotation. *See Figures 2, 6, 7 and 11.* Schaefer similarly does not disclose or suggest supporting a wearer's arm at a desired angle of external rotation. Since neither of these references discloses or suggests supporting a wearer's arm at a desired angle of external rotation, their combination similarly cannot disclose this feature.

Furthermore, neither Gaylord nor Schaefer teaches or suggests a chest strap adapted to support an anterior portion of the support pillow and suspend the anterior portion of the support pillow from an anterior edge of the shoulder pad. And, neither Gaylord nor Schaefer teaches or suggests a back strap adapted to support a posterior portion of the support pillow and suspend the posterior portion of the support pillow from a posterior edge of the shoulder pad. In Gaylord, the removable pad 80 is selectively positionable along the second strap segment 54. (*See col. 8, ll. 11-37.*) Accordingly, no portion of the cushion 20 is suspended from the removable pad 80. Schaefer does not even disclose or suggest a shoulder pad. Since neither of these references discloses or suggests the chest strap or back strap as described above, their combination similarly cannot disclose these features.

Since neither Gaylord nor Schaefer, nor their combination, teaches or suggests the features described above, Applicants respectfully submit that independent Claim 23 is allowable over Gaylord in view of Schaefer.. Dependent Claim 25, which includes the features of independent Claim 23, recites additional features of particular advantage and utility. Moreover, this claim is allowable for substantially the same reasons presented above. Accordingly, Applicants respectfully request that the Examiner withdraw these rejections.

**Gaylord and Jagdat in view of Bastyr**

The Examiner rejected Claims 9 and 21 under 35 U.S.C. § 103(a) as being unpatentable over Gaylord and Jagdat in view of U.S. Patent No. 5,407,420 to Bastyr. Applicants respectfully submit that these claims are allowable over the combination of Gaylord, Jagdat and Bastyr.

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Claim 9 depends from Claim 1, the allowability of which Applicants have demonstrated above. Since Claim 9 include all of the limitations of Claim 1, it is allowable for the same reasons presented above. Accordingly, Applicants respectfully request that the Examiner withdraw this rejection.

Claim 21 depends from Claim 15, the allowability of which Applicants have demonstrated above. Since Claim 21 include all of the limitations of Claim 15, it is allowable for the same reasons presented above. Accordingly, Applicants respectfully request that the Examiner withdraw this rejection.

Gaylord in view of Bastyr

The Examiner rejected Claim 14 under 35 U.S.C. § 103(a) as being unpatentable over Gaylord in view of Bastyr. While Applicants respectfully disagree that Claim 14 is obvious over the combination of Gaylord and Bastyr, Applicants have nonetheless canceled Claim 14 without prejudice. Applicants expressly reserve the right to pursue the subject matter of Claim 14 in continuing applications.

Gaylord and Schaefer in view of Bastyr

The Examiner rejected Claim 24 under 35 U.S.C. § 103(a) as being unpatentable over Gaylord and Schaefer in view of Bastyr. Applicants respectfully submit that this claim is allowable over the combination of Gaylord, Schaefer and Bastyr.

Claim 24 depends from Claim 23, the allowability of which Applicants have demonstrated above. Since Claim 24 include all of the limitations of Claim 23, it is allowable for the same reasons presented above. Accordingly, Applicants respectfully request that the Examiner withdraw this rejection.

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### **CONCLUSION**

For the reasons presented above, Applicants respectfully submit that this application, as amended, is in condition for allowance. If there is any further hindrance to allowance of the pending claims, Applicants invite the Examiner to contact the undersigned.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

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